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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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LMC1/0925
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EXAMINER

COLBERT, E

ART UNIT

PAPER NUMBER

2771

DATE MAILED:

09/25/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/547,191

Applicant(s)

Nori et al

Examiner

Ella Colbert

Group Art Unit

2771

☒ Responsive to communication(s) filed on Apr 4, 2000.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire Three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-24 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-24 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Objections

1. Claims 1-24 are objected to because of the following informalities: Applicant's claims do not begin on a separate sheet of paper. "Claims must commence on a separate sheet of paper" (MPEP 608.01 (j), 37 CFR 1.75). Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoover et al (US 5,560,005), hereafter Hoover.

With respect to claims 1, 16, 20, and 24, reading data from one or more rows of a set of one or more tables (**column 54, lines 31-40**), and presenting data from one or more rows as an object with an object id (**column 49, lines 54-59**). Hoover did not teach, generating an object id based on values from one or more rows, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have one or more rows and to generate and object id based on values from the rows because a relational database consists of tables of rows and columns that define a relationship between things in each row including one or more object

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attributes employed by users to identify object instances. Hoover did not teach a processor or a memory coupled to a processor, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a processor with the memory coupled to the processor to implement the steps of claims 1 and 16 because the processor controls the computer and the memory is the space within the computer where information is stored while actively being worked on.

With respect to claims 2, 17, and 21, generating an object id based on values includes generating an object id based on values from one or more rows of a relational table belonging to a set of one or more tables (**column 29, lines 39-59**).

With respect to claim 3, generating a reference to an object id ... (**column 53, in lines 49-58**).

With respect to claim 4, accessing the object based on the reference generated ... (**column 53, lines 23-37 and lines 59-67 and column 57, lines 28-35**).

With respect to claims 5, 18, and 22, receiving a request to define a view, the request specifying one or more columns of the set of tables containing values ... (**column 26, lines 63-67, column 27, lines 1-23, column 28, lines 18-29 and column 35, lines 56-63**), in response ... storing specification data that specifying one or more columns (**column 15, lines 4-28 and column 39, lines 54-60**). Hoover did not teach, generating an object id based on values from one or more rows including determining how to generate the object id ..., but it would have been obvious to one having ordinary skill in the art of object generation at the time the invention was

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made to have one or more rows and to generate the object id by inspecting the specification data because each object id is unique and identifies the object with which it is associated which contains data used to locate the object.

With respect to claims 6 and 23, Hoover did not teach, receiving a request to define a view including receiving a request specifying one or more columns including a column from a relational table, but it would have been obvious to one having ordinary skill in the art of defining a view at the time the invention was made to specify one or more columns from a relational table because a database server manages relational tables which define data structures or data types managed by the database server and a view of the data is presented to a user of objects of the object types in a database.

With respect to claims 7, 8, and 19, reading a first set of data from one or more rows of tables ... (**column 6, lines 40-56**), generating a column object based on a first set of data (**column 25, lines 44-57**), and presenting a second set of data from tables belonging to a set of one or more tables ... (**column 41, lines 44-67**). Hoover does not explicitly teach, the object has a column object as an attribute, but it would have been obvious to one having ordinary skill in the art at the time the invention was made for the object to have a column object as an attribute because a column is identified as a "row" and divides the fields into rows in a table with the field mapped to a corresponding object attribute. Hoover further teaches in claim 8, reading data from one or more rows includes the rows being read from a relational table (**column 17, lines 4-31**)

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and in claim 19, one or more databases (**column 6, lines 41-49**) and one or more tables contained in the databases (**column 18, lines 9-16**).

With respect to claims 9 and 10, Hoover did not teach, generating a collection object includes generating a collection object as a list of elements belonging to a single data type or generating a column object including a collection object, but it would have been obvious to one having ordinary skill in the art of object generation at the time the invention was made to have a list of elements because each row has a value and each column identifies an object type such as a person or a child attribute of the object type which can be a collection data type and represent one or more children of a person.

With respect to claim 11, Hoover did not teach, generating a collection object includes generating a collection object as a nested table, but it would have been obvious to one having ordinary skill in the art of collection object generation at the time the invention was made to generate a collection object as a nested table because the data types within an object table enable the modeling of one to many relationships.

With respect to claim 12, generating a column object includes generating a column object belonging to a user specified object type (**column 20, lines 10-38 and column 42, lines 6-13**).

With respect to claim 13, generating a column object includes generating a column object with a reference to another object (**column 42, lines 49-60**).

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With respect to claim 14, generating a column object includes generating a column object with a reference to an object presented by an object view (**column 42, lines 61-67 and column 43, lines 1-6**).

With respect to claim 15, generating a column object includes generating a reference to an object residing in a database (**column 14, lines 60-67 and column 43, lines 41-56**).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Owens et al (US 6,047,284) taught a relational database and an object-oriented environment with objects and database tables.

Boyer et al (US 5,778,355) taught a object-oriented database with retrieving data members and related members from a collection of data.

Srinivasan et al (US 5,893,108) taught a relational database management system with object identifiers in an object oriented schema.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is (703)308-7064. The examiner can normally be reached **Monday through Thursday from 6:30 a.m. to 5:00 p.m. EST.**

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu, can be reached on (703)305-4393.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703)308-9051, (for formal communications intended for entry).

Or:


(703)308-5403 (for informal or draft communications, please label

"PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, Virginia., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (703)308-9600.

Colbert
September 22, 2000


KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2700